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EXAMINER

ROGERS, DAVID A

ART UNIT

PAPER NUMBER

2856

DATE MAILED: 07/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/939,139

Applicant(s)

KOSSUTH ET AL.

Examiner

David A. Rogers

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 09 April 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 6-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 32-35 is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-19 and 22-31 is/are rejected.
- 7) ☒ Claim(s) 20, 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 April 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 12.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Drawings

2. The drawings are objected to because the figures are not consistent. Figures 2 and 6 each show the probe tip (reference item 118) adjacent to a lower plate (reference item 404). As seen in Figures 3A -3C, plate 404 comprises the funnel-shaped holes through which the fabric samples are protruded. Therefore, Figures 2 and 6 must have the lower plate as reference item 402 and upper plate as reference item 404. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 3, 6, 8, 11, 24, 25, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over "Handle-O-Meter" to Thwing-Albert Instrument Company in view of United States Patent 3,838,596 to Neuenschwander. The Handle-O-Meter of Thwing-Albert is an automated fabric handle testing apparatus. This apparatus comprises an adjustable slot over which is placed a fabric sample. In use, tests are "quickly accomplished" utilizing a cam that rotates a beam so that it forces the fabric through the slot. The resistance of the fabric is

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measured as it moves through the slot and is representative of its handle. Thwing-Albert does not teach the testing of four fabric samples on a substrate, i.e. fabric holder. Furthermore, Thwing-Albert does not expressly state that the testing of the fabric is not greater than two minutes. Modifying the method of Thwing-Albert to test a plurality of fabric samples would involve only routine skill in the art since, in the testing community, it is well established and desirable to increase the speed of the testing and/or the number of tests performed simultaneously in order to save time and expense. In the event that it was not obvious to test a plurality of fabric samples simultaneously, Neuenschwander teaches that it is well known to utilize an apparatus to simultaneously test a plurality of specimens (reference item 30), as best seen in Figures 1 and 2. Neuenschwander teaches that the apparatus is capable of testing a plurality of samples at the same time (Abstract) and that it is known to perform testing of samples in 10 to 15 seconds (column 1, lines 37-39; Column 2, lines 46-55). Neuenschwander also teaches that it is known to restrain each sample prior to performing the testing (column 3, lines 34-40) and that the samples do not overlap. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Thwing-Albert with the teachings of Neuenschwander to obtain a method to test a plurality of fabric samples wherein the throughput rate is not greater than 10 to 15 seconds and the samples are protruded through a slot via a protruding means.

5. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thwing-Albert in view of Neuenschwander as applied to claim 1 above, and further in view of U.S. Patent 2,590,839 to Clapham. Thwing-Albert in view of Neuenschwander teaches the simultaneous testing of a plurality of fabric samples. Thwing-Albert in view of Neuenschwander does not

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expressly teach a method to simultaneously test at least two different fabric samples. One of ordinary skill in the art of testing samples would know to choose samples that are either similar or dissimilar in order to compare results to better understand the effects of such areas as manufacturing quality or material composition. The choice of dissimilar materials for the plurality of samples to be tested would have been within the scope of one of ordinary skill, especially in view of the need to quickly complete the testing. To further support this, Clapham teaches that it is well known to use an apparatus to test a plurality of fabric samples (reference item S); and that the samples can either be the same or different materials (column 5, lines 14-23). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Thwing-Albert in view of Neuenschwander with the teachings of Clapham to obtain an apparatus that is capable of testing the characteristics of at least two different fabric samples simultaneously.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thwing-Albert in view of Neuenschwander as applied to claim 1 above, and further in view of United States Patent 5,790,9836 to Rosch *et al.* With regard to claims 8 and 9 the method to test fabric samples using the apparatus of Thwing-Albert would clearly anticipate the use of any of the claimed fabric types or fabric treatment types. The term "fabric" is a broad term as used Thwing-Albert and would encompass most of the fabric selections from the groups disclosed or claimed by the applicant. To further support this, Rosch *et al.* teaches a fabric with an acrylic coating that has been tested using the Handle-O-Meter from Thwing-Albert. None of the claimed fabrics or treatments would provide for a new, novel, or otherwise unexpected result over the method to test fabric samples using the device of Thwing-Albert. It would have been obvious to one of

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ordinary skill in the art at the time of the invention to modify the teachings of Thwing-Albert in view of Neuenschwander with the teachings of Rosch *et al.* to obtain a method to test fabric samples wherein the samples are woven or non-woven, and comprise various treatments such as acrylic coatings in order to gain an understanding of the fabric's properties so that it can be compared to other fabrics of same or different compositions.

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thwing-Albert in view of Neuenschwander as applied to claim 1 above, and further in view of United States Patent 3,804,092 to Tunc. With regard to claims 8 and 10 the method to test fabric samples using the apparatus of Thwing-Albert would clearly anticipate the use of any of the claimed fabric types or fabric additive types. The term "fabric" is a broad term as used Thwing-Albert and would encompass most of the fabric selections from the groups disclosed and claimed by the applicant. To further support this, Tunc teaches a fabric with a binder additive that has been tested using the Handle-O-Meter from Thwing-Albert. None of the claimed fabrics or treatments would provide for a new, novel, or otherwise unexpected result over the method to test fabric samples using the device of Thwing-Albert. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Thwing-Albert in view of Neuenschwander with the teachings of Tunc to obtain a method to test fabric samples wherein the samples are woven or non-woven, and comprise various additives such as binders in order to gain an understanding of the fabric's properties so that it can be compared to other fabrics of same or different compositions.

8. Claims 12, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thwing-Albert in view of Neuenschwander as applied to claim 1 above, and further in view of

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United States Patent 2,786,352 to Sobota. Thwing-Albert in view of Neuenschwander teaches a method to test fabric samples using a slot wherein the fabric is pushed through the slot using a beam. Thwing-Albert in view of Neuenschwander does not expressly state that the slot allows for the fabric to fold naturally from a flat to a bent folded state while further allowing continued contact between the fabric and the walls of the opening. Since the apparatus of Thwing-Albert is used to measure the handle properties of fabrics, the device more than likely allows the fabric to fold and bend while being pushed through the slot. The slot's walls would also continually contact the fabric sample. Even if it did not function in this manner, Sobota teaches that it is known to use holes (reference item 13) to test fabric samples (reference item 16). In the method to use the device of Sobota, the fabric sample transitions from a flat to a bent, folded state while allowing the fabric to maintain contact with the walls of the hole, as seen in Figure 3. The appropriate force provided by the protrusion means will provide for the fact that the sample will be forced through the hole by a distance at least as equal to its width (column 2, lines 16-20). The use of a circular hole instead of a slot, as taught by Thwing-Albert, would have been an obvious choice to one of ordinary skill in the art as the circular hole provides a better transition from a flat state to a bent, folded state and would provide a better indication of the fabric's handle. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Thwing-Albert in view of Neuenschwander with the teachings of Sobota to obtain a method to test fabric samples using a device with a hole that allows the sample to transition from a flat state to a bent, folded state in order to obtain a better understanding of the fabric's handle.

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9. Claims 13, 27, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thwing-Albert in view of Neuenschwander as applied to claims 1 and 26 above, and further in view of United States Patent 4,103,550 to Alley, Jr. *et al.* Thwing-Albert in view of Neuenschwander teaches a method to test fabric samples using a slot and a member to push the sample through the slot. Thwing-Albert in view of Neuenschwander does not teach a method to test fabric samples wherein the slot is configured with a top diameter about two times the lower diameter. Alley, Jr. *et al.* teaches a method to test fabric samples using an apparatus as seen in Figure 1. The apparatus comprises a nozzle (reference item 20) that is a convergent piece having a circular cross section (column 4, lines 23-26). This funnel-shaped nozzle allows the fabric sample (reference item 42) to be drawn through so that it folds. The nozzle of the device of Alley, Jr. *et al.* has a first diameter roughly twice that of the second diameter, as seen in Figures 1a and 7. As in the instant application, the larger diameter is where the fabric exists prior to being pulled through to the smaller diameter. This nozzle is preferred so as to avoid binding or choking of the fabric as it passes through the hole (column 5, lines 23-26). Furthermore, Alley Jr. *et al.* teaches that it is known to measure force with regard to displacement, as best seen in Figure 6. Alley Jr. *et al.* teaches that this type of data can be used to understand the handle of the fabric. The choice of measurement parameters is a matter of analytical choice. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Thwing-Albert in view of Neuenschwander with the teachings of Alley, Jr. *et al.* in order to obtain a method to test fabric samples wherein the hole through which the fabric is pushed has a first diameter roughly twice a second diameter so that the fabric will fold and bend without binding or choking in the hole.

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10. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thwing-Albert in view of Neuenschwander as applied to claim 1 above, and further in view of United States Patent 2,786,352 to Sobota. Thwing-Albert in view of Neuenschwander teaches a method to test fabric samples using a slot wherein the fabric is pushed through the slot. Thwing-Albert in view of Neuenschwander does not expressly state that the fabric sample is greater than about two times the diameter of the hole. Sobota teaches that it is well known to test a fabric sample so that the sample folds naturally and provides for a smooth transition from a flat state to a bent, folded state during protrusion, as best seen in Figures 2 and 3. Sobota further teaches that the protrusion can force the fabric sample through the opening (column 2, lines 16-20). Finally, Sobota teaches that the opening is two inches in diameter and the fabric sample is 4 ½ in square. Therefore, the length of one side of the fabric sample is 2.25 times greater than the diameter of the hole. The fact that the sample is square and not round does not provide for a new, novel, or otherwise unexpected result over the device of Sobota. The use of a sample that is larger than the hole allows for the fact that the sample will have sufficient frictional resistance with the support plate so as to not fall through the hole prior to testing. Furthermore, the sample width is about 114.3mm. The applicant's claim for a sample to be between 8mm and 18mm is a matter of design choice and is based on the size of the hole used. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Thwing-Albert in view of Neuenschwander with the teachings of Sobota to obtain a method to test fabric samples where the samples are about 2.5 times the size of the opening and the width of the sample is between 8mm and 18mm so as to avoid the risk of the sample falling through the hole prior to

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testing and to ensure there is sufficient material available so that upon pushing through the hole the fabric does not fold and drop through.

11. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thwing-Albert in view of Neuenschwander as applied to claim 1 above, and further in view of U.S. Patent 4,567,774 to Manahan *et al.* Thwing-Albert in view of Neuenschwander teaches a method to test samples by applying a force on one side of the planar samples. The environmental conditions are not regulated or monitored during the testing of the samples using the method of Thwing-Albert in view of Neuenschwander. Manahan teaches a method to test comprising an apparatus, as best seen in Figures 1 and 2, that is used to press a disk-shaped sample (reference item 25) into a cavity (reference item 36). In Figure 2 Manahan discloses an environmental chamber (reference item 50) that contains the testing portion of the apparatus. Testing of samples while subjecting them to conditions that replicate their expected operating environment is well known in the art. This is an obvious choice as materials tend to exhibit different characteristics when operating in extreme conditions, such as extremely cold temperatures that can cause fabrics or other samples to become brittle. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Thwing-Albert in view of Neuenschwander with the teachings of Manahan to obtain a method to test samples using a pressing member and an environmental chamber surrounding the testing region.

12. Claims 23, 29, 30, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thwing-Albert in view of Neuenschwander as applied to claims 1 and 26 above, and further in view of United States Patent 3,151,483 to Plummer. Thwing-Albert in view of Neuenschwander teaches a method to test fabric samples by pushing the samples through an opening. The

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apparatus of Thwing-Albert comprises a beam that pushes the fabric through a slot. It would be inherent in the device of Thwing-Albert that the beam is a blunt-shaped object so to avoid cutting or puncturing the sample which would negate the test. Thwing-Albert in view of Neuenschwander does not teach a method to test samples wherein the probe speed is between 1 mm/s and 10 mm/s and the fabric moves relative to the probe. Plummer teaches a fabric testing apparatus comprising a blunt-end probe (reference item 38) that will push a fabric sample (reference item S) through an opening and where the preferred fabric sample shape may be circular (column 5, line 4). Plummer further teaches that the dimensions of the fabric sample are variable (column 4, lines 72-75 and column 5, lines 1-3). Reversing the movement of the apparatus of Thwing-Albert so that the fabric sample is translated towards the probe would have been an obvious modification to one of ordinary skill in the art. Furthermore, moving the fabric sample relative to the probe does not provide for a new, novel, or otherwise unexpected result. Even if the direction of movement was not an obvious modification, Plummer teaches a probe testing apparatus, as best seen in Figure 1, that pushes a blunt member (reference item 38) into a fabric sample (reference item S). Plummer further teaches that sample holder (reference item 10) is moved in a direction normal to the probe member (column 3, lines 47-51). Plummer teaches the general conditions of a test apparatus where fabric samples are pressed into a funnel-shaped opening. Neither Thwing-Albert nor Plummer expressly teaches a speed of movement between 1 mm/s and 10 mm/s. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to provide for a speed to move the probe in the preferred range in order to perform the test, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only

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routine skill in the art. See *In re Aller*, 105 USPQ 233. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Thwing-Albert in view of Neuenschwander with the teachings of Plummer in order to obtain a method to test fabric samples by moving the samples towards a blunt probe.

13. Claims 14 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thwing-Albert in view of Neuenschwander as applied to claim 1 above, and further in view of United States Patent 4,776,202 to Brar *et al.* Thwing-Albert in view of Neuenschwander teaches a method to test fabric samples using an indenting means to push the sample through a slot. Thwing-Albert in view of Neuenschwander further teaches that it is known to ensure that the samples are restricted from movement before and during the testing. Thwing-Albert in view of Neuenschwander does not teach a method wherein the fabric sample is placed on a plate with a recessed region and the region is used to restrict the motion of the sample. Restricting the motion of the sample would have been an obvious choice in order to avoid shifting the sample prior to or during the test that would negate the test results. Furthermore, if the sample holder were moving, as disclosed by the applicant, then restricting the motion would be highly desired. Even if such restriction of movement was not obvious, Brar *et al.* teaches an indenting testing apparatus wherein the test sample (reference item 12) is restrained by a recess in a test table (reference item 16) that is further attached to a base (reference item 14), as best seen in Figure 1. The base is movable, so restraining the sample from shifting its location while the base moves would have been desirable. It would have been obvious to further size the recessed region to be larger than the hole through which the fabric is pushed and at least as large as the sample. Doing so would ensure that the fabric both lays flat and does not move out of position prior to and

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during the test. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Thwing-Albert in view of Neuenschwander with the teachings of Brar *et al.* to obtain a method to test samples wherein the samples are restrained from movement by a recessed portion so as to avoid movement of the sample prior to or during the testing.

Allowable Subject Matter

14. Claims 32-35 are allowed.
15. Claims 20 and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Similarly, claim

Conclusion

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. United States Patent 6,324,251 to Kuwabara discloses a method and apparatus to test a plurality of specimens. The specimens are placed in a recessed region (reference item 441) of a holder (reference item 44). The holder is restrained from movement by recesses (reference item 431) in a rotating table (reference item 43).

b. United States Patent 3,613,445 to Dent *et al.* discloses a fabric handle determination device wherein a sample (reference item 29) is caused to be pushed through a slot. The data is measured and recorder using a load cell (reference item 10) and a recorder (reference item 36).

c. United States Patent 5,795,989 to Simmons *et al.* discloses an apparatus for testing a plurality fabrics samples simultaneously.

d. United States Patent 3,618,372 to Beckstrom discloses a fabric testing apparatus comprising a blunt end probe (reference item 47) that moves towards a sample (reference item 46) that rests on a plate (reference item 22) with a hole.


18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David A. Rogers whose telephone number is (703) 305-4451. The examiner can normally be reached on Monday - Friday (0730 - 1600).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron E. Williams can be reached on (703) 305-4705. The fax phone numbers for

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the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-3431.


dar
July 2, 2003

HELEN KWOK
PRIMARY EXAMINER

